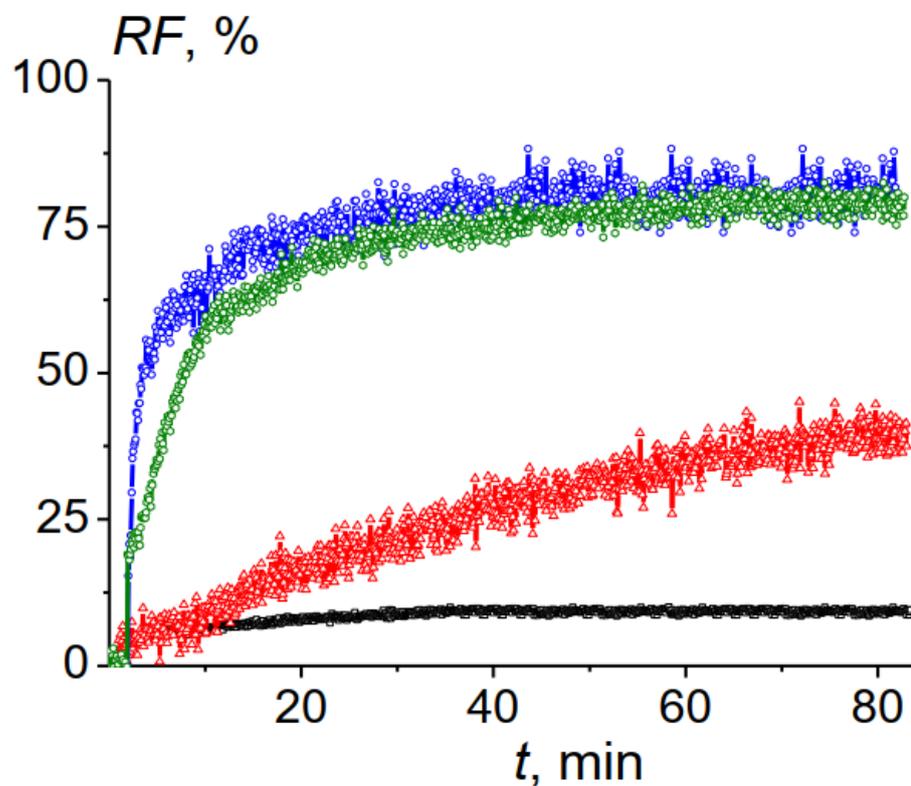


# Supplementary Material: Discovery of the Potentiator of the Pore-Forming Ability of Lantibiotic Nisin: Perspectives for Anticancer Therapy

Dayana N. Chernyshova, Alexander A. Tyulin, Olga S. Ostroumova and Svetlana S. Efimova \*

Laboratory of Membrane and Ion Channel Modeling, Department of Molecular Physiology of the Cell, Institute of Cytology of Russian Academy of Sciences, Tikhoretsky 4, 194064 Saint Petersburg, Russia

\* Correspondence: efimova@incras.ru



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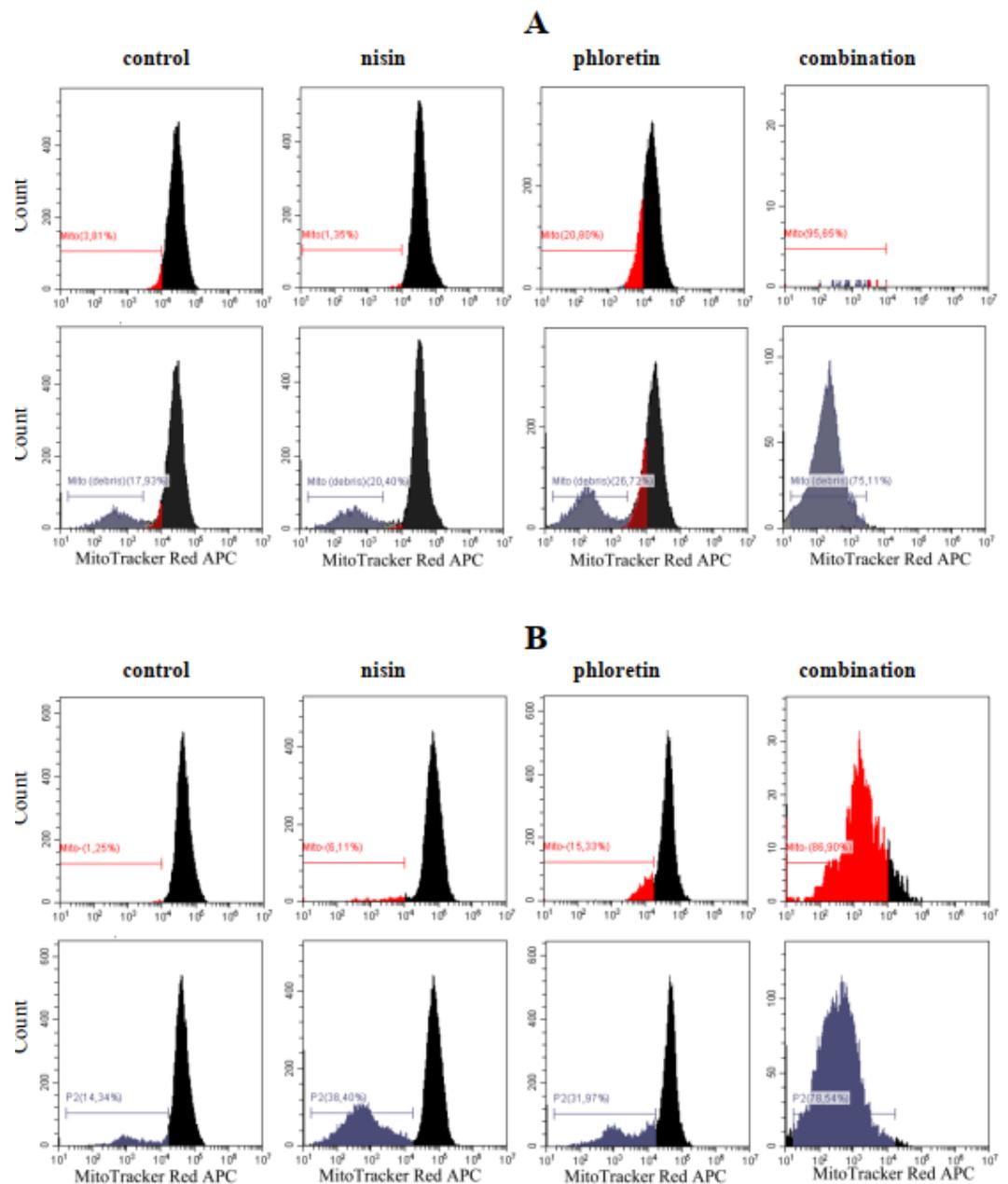
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**Figure S1.** The dependence of relative fluorescence of calcein (*RF*) leaked from vesicles composed of DOPC (*black curve*), DOPC/DOPS (50/50 mol%) (*red curve*), DOPC/DOPG (50/50 mol%) (*green curve*) and DOPC/TOCL (50/50 mol%) (*blue curve*) on time (*t*). The lantibiotic was added into the liposomal suspension up to 0.1 mM at the zero time point.

**Table S1.** The parameters of exponential function fitting the time dependence of nisin-induced calcein leakage from liposomes of different phospholipid composition.

<i>lipid composition of vesicles</i>	<i>RFmax, %</i>	<i>t0, min*</i>	<i>t1, min**</i>	<i>t2, min**</i>
DOPC	9 ± 3	10 ± 1		
DOPC/DOPS (50/50 mol%)	39 ± 3	58 ± 2		
DOPC/DOPG (50/50 mol%)	82 ± 2	-	0.8 ± 0.3	12 ± 2
DOPC/TOCL (50/50 mol%)	81 ± 2	-	4.8 ± 0.5	24 ± 2

According to the value of the  $\chi^2$ -test, single(\*)- or double(\*\*)-exponential function was used to fit the time dependence of relative fluorescence of calcein leaked from vesicles with constants  $t_0$  or  $t_1$  and  $t_2$  respectively.



**Figure S2.** Histograms of the mitochondrial membrane potential of HepG2 cell line measured after 24 hours (**A**) and 48 hours (**B**) in the absence of any modifiers (control, *first column*) and in the incubation with 1 mM nisin (*second column*), 0.1 mM phloretin (*third column*) and their combination 1 mM nisin and 0.1 mM phloretin (*fourth column*). Vertical axis represents number of events, horizontal – fluorescent signal from the MitoTracker in APC (Allophycocyanin) channel. Red color signed "Mito" reflects the process of mitochondrial membrane depolarization, the black color is for cells with normal negative potential. Upper row of panel A and B represents cells excluding cell debris, lower row of panel A and B includes debris ("Mito(debris)"). Ten thousand events were recorded in total.